MV 3 SERIES

GAS CONVECTION RANGE

OWNER'S MANUAL

Country of Destination
GB and IE

IMPORTANT CUSTOMER INFORMATION

Please check the gas tap and thermostat will press and release freely prior to lighting the burner, as this is part of the unit's safety mechanism.

It is particularly important to check this following spillage as solidified fats and carbonised meat juices can impair the valves correct operation.

IMPORTANT INFORMATION INSTALLATION ENGINEER

Please ensure the customer is made fully aware of how the gas tap and thermostat operate and the importance of checking its operation daily.

Model No.	Product Description	Rev.	Date	Flexible Hose Size
	MV2 Gas Convection Range			
MV2RCO90-OT-NG	6 Burner Hob/Gas Convection Range	1	14/01/08	¾" BSP hose
MV2RCO90-OT-NG-C	6 Burner Hob/Gas Convection Range With Castors	1	14/01/08	¾" BSP hose
MV2RCO90-OT-NGV	6 Burner Hob/Gas Convection Range With VE Pan Supports	1	14/01/08	¾" BSP hose
MV2RCO90-OT-LP	6 Burner Hob/Gas Convection Range	1	14/01/08	¾" BSP hose
MV2RCO90-OT-LP -C	6 Burner Hob/Gas Convection Range With Castors	1	14/01/08	¾" BSP hose
MV2RCO90-OT-LPV	6Burner Hob/Gas Convection Range With VE Pan Supports	1	14/01/08	¾" BSP hose

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Warning - This unit must be mounted on a non-combustible surface.

Where this appliance is to be positioned in close proximity to a wall, partitions, kitchen furniture, decorative finishes etc; it is recommended that they be made of non-combustible material. If not, they should be clad with a suitable non-combustible heat-insulating material, and that the closest attention be paid to Fire Prevention Regulations.

INTRODUCTION

This manual contains all the required information to ensure that your new appliance is installed correctly and that you have all the information necessary to identify and order spare parts. It also contains comprehensive instructions for the user and for cleaning the appliance.

To maintain peak performance, it is recommended that the appliance be regularly serviced and that when ordering spare parts, reference be made to the appropriate list quoting the Part No. and the description. THE FITTING OF A NON-STANDARD PART MAY VOID ANY GUARANTEE.

All work carried out on this appliance during installation or servicing must be performed by a competent person and the connection of the appliance to the gas supply MUST be carried out by qualified personnel in accordance, where applicable, with the relevant regulations.

The siting of the appliance and the connection to the gas/electrical supply must comply with the GAS SAFETY (INSTALLATION & USE) REGULATIONS 2000: the requirements of the FIRE PRECAUTIONS ACT 1971; the HEALTH & SAFETY AT WORK, etc ACT 1974, the BUILDING STANDARDS (SCOTLAND) CONSOLIDATION REGULATIONS 1971. Detailed recommendations are contained in British Standards BS5440: Part 1: 2000, BS5440: Part 2: 2000, BS5588: Part 0: 1996, BS5588: Part 11: 1997 & BS6173: 2001.

The installation must comply with the requirements of Local Authority Regulations and the wiring must comply with the latest I.E.E. Regulations.

An easily accessible stopcock must be fitted in the gas supply adjacent to the appliance for use in an emergency. In addition a fused isolator must be fitted in the electricity supply.

The details of the gas supply will be found on the Data Plate, which is located on the rear of the flue upstand/splashback panel.

WARNING: THIS APPLIANCE MUST BE ELECTRICALLY EARTHED

Improvements

The policy of **Manitowoc Food Service Ltd.** is such that, each product is subject to continual development and may, therefore, be subsequently improved. The company reserves the right to alter the design of any appliance without prior notification and without responsibility to update any delivered or in-service appliance and furthermore, without incurring the responsibility for altering these instructions. In such circumstances, it may be found that the appliance detailed herein differs in certain respects from the one supplied.

IT IS IMPORTANT, THEREFORE, TO QUOTE THE SERIAL No. AND THE APPLIANCE MODEL No. IN ALL COMMUNICATIONS WITH THE COMPANY.

Introduction (cont.)

Important

Before installing any item please refer to the installation instructions.

We recommend that our authorised service agents carry out all servicing, other than routine cleaning, and will accept no responsibility for work carried out by other persons.

For satisfactory operation, parts of catering equipment become hot. Suitable precautions must be taken to avoid accidental burns therefore the appliance should be positioned to minimise the possibility of accidental touching. It is the supervisor's responsibility to warn users to wear suitable protection and to follow correct operation and cleaning procedures.

For the details of your nearest Service Agent for all warranty and repair work, you should contact:

The Service Department,

The Service Department,
Ashbourne House
The Guildway
Old Portsmouth Road
Guildford
Surrey
GU3 1LR
Tel: +44 (0) 1483 464902
Fax: +44 (0) 845 301 1461

Spares can be obtained via the Spare Parts Department at the above address.

IT IS IMPORTANT TO QUOTE THE SERIAL No. AND THE APPLIANCE MODEL No. IN ALL COMMUNICATIONS WITH THE COMPANY.

SPECIFICATION

900 6 Burner Gas Hob With Gas Convection Oven

Gas Pressure

Natural Gas	15 mbar	(6" wg.)
Propane Gas	37 mbar	(14" wg.)

Gas Connection

½" BSP Taper Male (Rp ½")
When connecting using a flexible hose fit a ¾" BSP hose-900 6Brn Convection Oven Range

Heat Input (Nett)

		Injectors mm		Natural Gas Supply Pressure 20mb. Adjusted pressure 15mb			Propane Gas Supply Pressure 37mb. Adjusted Pressure 35mb		
		NG	LP	m^3/hr	Btu/hr	kW	kg/hr	Btu/hr	kW
Oven		2.44	1.50	0.932	30,025	8.8	0.656	28,606	8.384
Hotplate Burner		2.27	1.32	0.561	20,472	6.0	0.493	20.472	6.0
Total									
	Range			4.298	152'857	44.80	3.614	151'438	44.384

Thermostat Calibration

As control knob markings in °C

Electricity Supply

230v Single Phase 50 Hz

Motor Rating (nominal)	320w
Oven Interior Light	30w
Recommended Fuse Rating	5 Amps

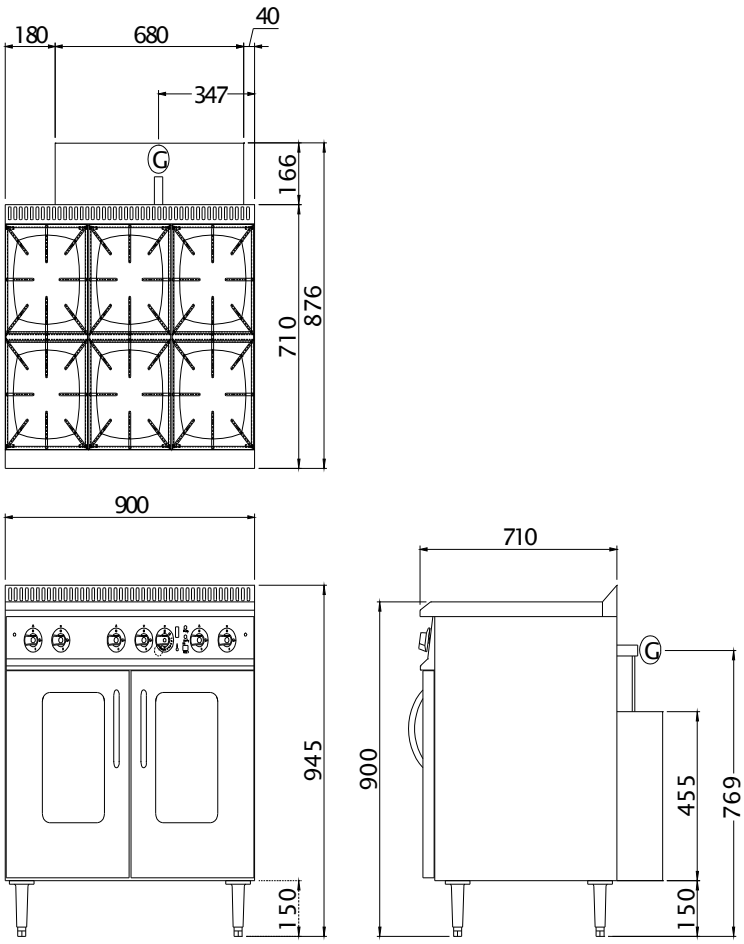
Oven Dimensions

Oven Cavity - 785mm wide x 530mm deep x 375mm high
Shelf Size - 665mm x 510mm suitable for 2 off 1x1containers

Weight
Range - 130kg

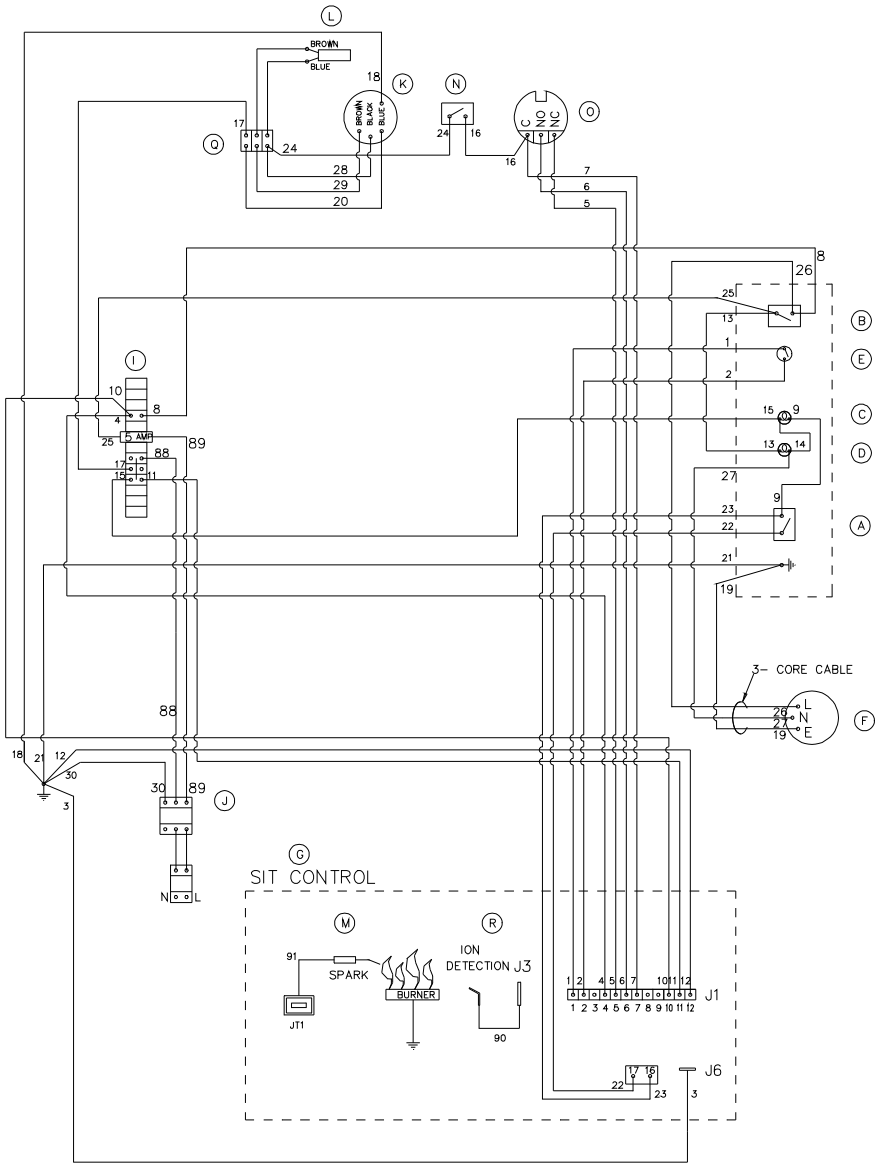
Specification (cont.)

6 Burner Gas Hob with Gas Convection Range



Specification (cont.)

Wiring Diagram: Range



KEY

A THERMOSTAT	930094-01
B SWITCH	927447-01
C AMBER NEON (OVEN)	926173-01
D GREEN NEON (MAINS)	926173-02
E RESET	930022-01
F OVEN LAMP	081087400
G CONTROL BOARD	930021-01
H DOUBLE SOLENOID VALVE	930020-01
I FUSE (6 AMP)	927450-03
J LINE FILTER	927557-01
K MOTOR	925172-01
L CAPACITOR	925174-01
M SPARK ELECTRODE ASSEMBLY	926721-G2
N MICROSWITCH	111496-F1
O PRESSURE SWITCH	929358-01
P ELECTRODE LEAD	926299-03
Q TERMINAL BLOCK	923222-02
R ELECTRODE ASSEMBLY	930023-G1

INSTALLATION

Important

Your attention is drawn to the GAS SAFETY (INSTALLATION & USE) REGULATIONS 2000.

This appliance MUST be installed by a competent person in accordance with these and any other relevant regulations. Users, too, should be aware of the regulations governing the use of gas appliances, particularly with respect to the need for regular servicing.

The installation wiring of this appliance MUST comply with the latest I.E.E. Regulations.

WARNING: THIS APPLIANCE MUST BE ELECTRICALLY EARTHED.

PAT TEST: Test voltage should be 1250v Max with the spark electrode disconnected to prevent damage to the Electronics.

Before Installation

Before commencing installation, remove all packaging materials from the appliance. It is suggested that any protective film adhering to the stainless steel panels should be left on until installation is completed. BUT THIS MUST BE REMOVED BEFORE COMMISSIONING OR OPERATING THE APPLIANCE.

Check the appliance Data Plate (located on the back of the flue upstand/splashback panel), to ensure the appliance is suitable for the gas supply available.

Ensure that the floor upon which the appliance is to stand is level and capable of adequately supporting the weight of the appliance. TO COMPENSATE FOR SOME UNEVENESS OF THE FLOOR, THE APPLIANCE FEET ARE ADJUSTABLE.

THE FLOOR MUST BE FIREPROOF. If it is not, or if any adjacent wall or surface is made of a combustible material, then the installer MUST ensure that the requirements of the LOCAL FIRE REGULATIONS are observed.

Positioning

Place the appliance in position allowing a minimum gap of 150mm (6") at the rear and at least 150mm (6") between the sides of the appliance and any adjacent wall. If the appliance is being suited then please refer to the separate instructions. The minimum distance between the hotplate and any overshelf or ceiling constructed of a combustible material must be 1525mm (60")

Adequate ventilation is essential for safe operation of a gas appliance. A supply of fresh air is necessary for the correct combustion of the gas and there must be a means of exhausting the heat and the products of combustion from the kitchen. It is recommended that the appliance be sited below a ventilating hood, one preferably connected to an extractor system incorporating a grease filter.

Installation (cont.)

Important Note

The appliance MUST NOT be connected DIRECTLY to a flue or ventilating system, although the flue products of two or more appliances may be directed into a common outlet when building suite of appliances (see separate instructions for suited appliances).

Ensure that the appliance is level in two places – front to rear and side to side. To check the level it is recommended that a spirit level be placed on a shelf in the open oven – NOT on top of the hotplate! Level can be achieved by adjusting any or all of the screw in feet in each corner of the base. Turn anti-clockwise to lower and clockwise to raise the corner.

Gas Connection

Natural Gas: The size of the supply pipe should be no smaller than ½" BSP and an easily accessible stopcock must be fitted in the gas line adjacent to the appliance. The gas governor provided with the appliance MUST be fitted in the supply line BETWEEN the stopcock and the appliance.

An armoured flexible pipe of a GAS COUNCIL APPROVED PATTERN is recommended for the installation of this appliance.

NOTE:

Due to the pressure loss through the snap connection fitting on flexi hoses you must fit a ¾" flexible hose

Ensure that all the pipes to the appliance are clean and free from swarf etc, BEFORE making the final connection.

Propane Gas: Follow the same procedure as that for Natural Gas EXCEPT that the Gas Governor MUST NOT be fitted – the Gas Supply Tank or Cylinders are already fitted with a Gas Regulator.

Leak Test

Clean off any protective film from the stainless steel panels.

AT THIS STAGE, LEAK TEST THE WHOLE SYSTEM. THE GAS SAFETY REGULATIONS require that ALL connections in the gas supply line between the Gas Meter and the appliance is tested for gas leaks.

THIS MUST BE DONE BEFORE COMMENCING TO COMMISSION THE APPLIANCE.

Checking and Commissioning

ALTHOUGH EVERY APPLIANCE IS TESTED AND SET BEFORE IT LEAVES THE FACTORY, IT IS IMPORTANT THAT THE INSTALLER RE-CHECKS CERTAIN FUNCTIONS BEFORE LEAVING SITE.

CHECK THE GAS PRESSURE AT THE APPLIANCE THUS:

The pressure test point For Ranges it is located on the manifold rail behind the front control panel, which is secured by two M5 screws.

Connect a manometer (U Tube) to the test point. Turn on the gas supply and light 3 hotplate burners plus the oven. Check that the pressure reading agrees with that stated on the Data Plate.

Go through the oven lighting procedure, as listed in the USERS INSTRUCTIONS, ensuring that all neon lights work and leave the oven set to 175°C for 20 minutes to ensure that it heats up and that the burner (and amber light) goes out when the temperature is reached.

SHOULD ADJUSTMENT BE NECESSARY, PROCEED AS FOLLOWS: -

FOR PROPANE GAS, REFER TO SUPPLIER

On the gas governor: For Ranges it is a separate item.

Remove the cap in order to gain access to the pressure adjusting screw.

Turn the pressure adjusting screw clockwise to increase the pressure or anti-clockwise to decrease it.

When the pressure reading is correct, refit the cap to the governor.

Turn the gas supply to the unit OFF at the stopcock and disconnect the manometer (U Tube). Ensure that the pressure test point screw is refitted.

Turn the gas supply to the appliance on at the stopcock and leak test the pressure test point.

Burner Aeration

The aeration of all the burners is fixed and does not need adjusting. Do not disturb the air combustion admission or the combustion products evacuation on open top burners.

USERS INSTRUCTIONS

Important Note

The attention of the user is drawn to the requirements of the GAS SAFETY (INSTALLATION & USE) REGULATIONS 2000. This appliance must be used in accordance with those, particularly so in respect of the need for regular servicing.

See also the sections of this manual referring to Cleaning and General Maintenance.

Safety Note

This appliance is intended for professional use and shall only be used by qualified personnel.

Take care when opening the oven door while the cooking chamber is still hot. note other Parts and surfaces of this appliance also become hot during use.. It is the responsibility of the kitchen supervisor to inform and warn every user and kitchen worker of this and, furthermore, to ensure those users wear and use protective clothing when operating the appliance.

Should any adjustment or attention be necessary, you are advised to contact your nearest GAS SAFE Registered Installer/ Service Engineer immediately. The need for regular servicing is detailed in the GAS SAFETY (INSTALLATION & USE) REGULATIONS 2000.

IF YOU THINK THAT GAS IS ESCAPING, ACT IMMEDIATELY. SHUT OFF THE GAS SUPPLY AT THE METER OR EMERGENCY CONTROL; CONTACT THE SUPPLIER OF YOUR GAS IMMEDIATELY.

MAKE SURE THAT ALL USERS OF THIS APPLIANCE KNOW WHERE THE GAS SUPPLY STOPCOCK IS LOCATED FOR USE IN AN EMERGENCY.

Improvements

The policy of **Manitowoc Food Service Ltd** is such that each product is subject to continual improvement. The company reserves the right to alter the design of any appliance without prior notification and without responsibility to update any delivered or in-service appliance and furthermore, without incurring the responsibility for altering these instructions. In such circumstances, it may be found that the appliance detailed herein differs in certain respects from the one supplied.

For further details or enquires please contact:

Ashbourne House
The Guildway
Old Portsmouth Road
Guildford
Surrey
GU3 1LR
Tel: +44 (0) 1483 464900

Users Instructions (cont.)

Pan sizes

The maximum pan size to be used is 34cm and the minimum pan size to be used is 12cm to ensure satisfactory combustion and stability

Open Hotplates

Lighting Instructions:

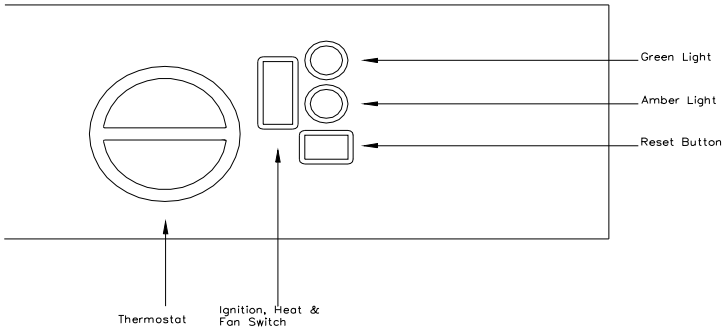
1) To turn on an individual open top hotplate burner, push in the appropriate gas tap knob and turn it anti-clockwise to the double flame position, the "Full On" position. At the same time apply a lighted taper to light the burner head.
2) Keep knob depressed for a further 20 seconds until the flame is established.
3) If the flame is extinguished on releasing the knob, wait 3 minutes then repeat steps 1 & 2.
4) To turn down or lower the heat, turn the gas tap knob anti-clockwise from the "Full On" position until the desired flame height is reached. Turned fully anti-clockwise to the single flame position, this is the lowest setting.

Note! When first lighting the appliance, after installation or after an extended shutdown period, it may be necessary for the gas control knob to remain pushed in for some time before the burner will light, owing to the presence of air in the gas line.

To Turn Off:

Turn the gas tap knob fully clockwise (beyond the "Full On" position) to the "Off" position .

Oven



Green Light - Is alight when there is an electrical supply to the unit.

Amber Light - Is on when the oven burner is on. When the amber light goes out the oven has reached temperature.

Ignition Switch - Initiates the ignition sequence. This takes a few seconds. It turns on the fan & main burner.

Reset Button - If oven fails to ignite it is necessary to press reset button in order to repeat ignition sequence.

Oven (cont.)

Lighting Instructions

1) Check that the gas and electricity supplies are turned on and that the “green indicator light” is on.
2) Switch on the Ignition Switch. After a few seconds the controls will automatically go through the ignition sequence.
3) Once the thermostat is set to the desired temperature the “amber indicator light” will come on and stay on until the oven reaches temperature, the oven will then automatically cycle on and off at this temperature.

If, once the thermostat has been turned on, the “amber indicator light” does not come on, or goes out before the oven is hot, wait for 3 minutes before pressing the “reset button”.

Note! The oven burner depends on the fan operating for it to work efficiently. To ensure this happens an air proving (or pressure switch) is fitted, which will allow mains gas to the burner as long as the fan is operating.

Using the Oven

The oven is provided with four shelves and four-position shelf supports. Each shelf will take two 1/1-gastronorm containers. DO NOT OVERLOAD THE OVEN. The air must be allowed to move freely around the oven to cook the food, so leave as much space as possible between dishes and food.

The following guide is for temperature settings. Cooking times will vary according to food weight and size BUT IT WILL BE SHORTER THAN CONVENTIONAL COOKING.

Cooking Guide

	Mark No	Temp °C	Temp °F
ROASTING			
Beef joint on bone	2 or 3	140 – 160	284 – 320
Beef joint off bone	3	160	320
Lamb on bone	3	160	320
Lamb off bone	4	140	284
Veal	3 or 4	160 – 180	320 – 356
Pork on bone	6	230	446
Pork off bone	6	230	446
Turkey	4	180	356
Whole Chicken	5 or 6	200 – 230	392 – 446
GRILLING			
Chicken Portions	6	230	446
Pork Chops	7	250	482
Fillet Steak	7	250	482
Hamburgers	6	230	446
Fish Fingers	3 or 4	160 – 180	320 – 356
Baked Potatoes	5 or 6	200 – 230	392 – 446
Meat Loaf	4	180	356
BAKING			
Yeast Breads – Rolls	4 or 5	180 – 200	356 – 392
Yeast Breads – Loaves	4	180	356
Sweet Rolls & Danish	3 or 4	160 – 180	320 – 356
Biscuits	4 or 5	180 –200	356 – 392
Pizza – frozen or pre-baked	6	230	446
Scones	5	200	392
Sponge Cake	4	180	356
Small Cakes	4	180	356
Puff Pastry	5	200	392

The temperature guide given above is only intended as a guide to assist the user to adapt a temperature or cooking term in a recipe. The manufacturer has determined the actual temperature in the oven and it will not necessarily correspond to the guide given, but using the guide will produce the required results. It is strongly recommended that recipes are tried, and that notes of the best results are kept for future reference.

Users Instructions (cont.)

Cleaning the Equipment

It will be found that it takes less time and effort if appliances are cleaned every day, particularly while they are still warm and before grease and spillage are burnt on.

PROPRIETARY OVEN CLEANER MUST BE USED WITH CARE. THEY ARE HIGHLY CORROSIVE AND MAY CAUSE DAMAGE TO SURACES AND COMPONENTS.

Open Top Hotplates

Wipe the open top pan support grids clean of grease and spillage's regularly (even during cooking sessions). A crust of burnt on carbon, coating the pan supports is unsightly, is a health hazard and will impair cooking efficiency.

Daily: Soak the pan support grids in a mild solution of a grease dissolving agent or detergent – DO NOT USE A CAUSTIC CLEANING AGENT – and wash. Accumulated deposits may be removed by soaking and then carefully scraping or a fine cleaning paste could be tried.

SOME PAN SUPPORTS GRIDS ARE VITREOUS ENAMELLED – DO NOT USE CAUSTIC CLEANERS AT ALL. WIPE OVER WITH A LIGHT COATING OF COOKING OIL AFTER CLEANING AND DRYING.

The burner caps and burner rings may be removed from the open top hotplate burners for cleaning. Soak and wash in a mild detergent solution, rinse and dry thoroughly before replacing. DO NOT allow water or cleaning agents to enter the burner venturi. DO NOT use caustic cleaners on burner parts. DO NOT scrape or poke the burner port ring, soak and carefully BRUSH clean any stubborn accumulations of dirt.

REPLACE THE BURNER COMPONENTS CAREFULLY IN THEIR CORRECT POSITION.

Remove the full width drip shield by removing the pan supports and burner caps/rings first. The drip shield can be cleaned by washing with a mild detergent solution, rinse and dry before replacing. This is one of those jobs that MUST be carried out on a daily basis and IMMEDIATELY following a spillage.

The Oven

The oven shelves and the oven shelf supports can be removed for cleaning. Withdraw the shelves in the normal way, rub them free of grease using an absorbent paper pad and wash in a hot detergent solution. Rinse and dry before replacing.

The shelf supports are removed by lifting them free from their locating brackets and withdrawing them from the oven interior. They, too, can be washed in a hot detergent solution, rinsed and dried before replacing.

Cleaning the Equipment

The Oven (cont.)

Clean the oven interior and the oven door-lining daily, using a hot mild detergent solution. This is especially necessary if a spillage has occurred; meat has been roasted or fruit pies baked. Rinse with clean water. Stubborn accumulations can be gently scraped off after soaking.
DO NOT USE CAUSTIC OR ABRASIVE CLEANING AGENTS.

Leave the oven drip tray in position while you clean the oven, it will collect all the bits and drips and can be removed for cleaning at the sink.

Clean stainless steel with soap and hot water or a mild detergent solution. Rinse and dry thoroughly.
DO NOT USE CAUSTIC OR ABRASIVE CLEANERS. DO NO USE ABRASIVE PADS.

Vitreous enamelled surfaces should be wiped clean of grease and spillage's BEFORE they are burnt on. Use a mild solution or a grease dissolving agent or a detergent as a soak and wash. Accumulated deposits may be removed by soaking and then carefully scraping or by using a fine cleaning paste.

DO NOT USE CAUSTIC CLEANERS.

On a weekly basis, remove all the oven furniture and the oven bottom panels – the drip tray and the bottom baffles when fitted. CLEAN OUT the bottom compartment – this is the oven burner compartment and it must be emptied of all loose debris and carbon deposits.

DO NOT DISTURB THE OVEN BURNER OR ELECTRODE/SENSOR.
DO NOT USE WATER OR A LIQUID CLEANER ON THE OVEN BURNER.

Brush clean using a dry bristle brush.

General Maintenance and Care

This equipment is designed and manufactured to give you a long, satisfactory service at low cost, provided that it is given proper care and attention at all times. Frequent cleaning and regular checking of correct adjustment will be rewarded by reduced operating and maintenance costs, minimum downtime and regular results from your cooking.

Pilot flames must be of the correct length and be stable and undistorted. All pilot flames must show no more than a trace of "yellow tipping" and the flames should just envelope the end of the flame electrode/sensor.
DO NOT POKE WIRE INTO PILOT BURNER PORTS OR ORIFICES TO CLEAR THEM OF OBSTRUCTIONS, SEND FOR A QUALIFIED ENGINEER.

Cleaning the Equipment (cont.)

General Maintenance and Care

The flame ports of gas burners must be clean and unobstructed. The user must brush them clean using a dry bristle brush.

THE UNBLOCKING OF GAS BURNER PORTS IS BEST LEFT TO A QUALIFIED SERVICE ENGINEER.
All gas taps and gas controls must operate smoothly and freely without sticking or jerking. A QUALIFIED SERVICE ENGINEER MUST carry out re-lubrication.

WE RECOMMEND THAT ALL EQUIPMENT IS SERVICED AT LEAST ONCE A YEAR, BUT MAY BE AS FREQUENT AS 6 MONTHS OR LESS IF THE GAS TAPS/THERMOSTAT AND GAS CONTROLS DO NOT OPERATE FREELY. ALL WORK MUST BE CARRIED OUT BY A QUALIFIED SERVICE ENGINEER.

SERVICE INTERVALS CAN BE AFFECTED BY SPILLAGE AND SHOULD BE ASSESSED EACH TIME THE EQUIPMENT HAS BEEN USED.

SERVICE AND MAINTENANCE

Maintenance MUST only be carried out by a competent person. Ensure that the gas and electricity supplies to the appliance have been turned "OFF" before dismantling any components.

Routine Maintenance Procedure

1) Turn "ON" the oven (and three burners where appropriate) and check that the gas pressure at the pressure test point is as stated on the Date Plate.

   Natural Gas – 15 mb (6" wg)
   Propane Gas – 37 mb (14" wg)

2) Turn on each hotplate burner in the full and turn down positions.
3) Carry out the lighting procedures for the oven and check that the ignition and the burner flames are satisfactory.
4) Turn off the gas supply to the range.
5) Remove the pan supports and burner caps. Clean out the burner caps.
6) Ensure that the burner injectors and burner air passages are clear. Replace burner caps.
7) Re-grease the hotplate gas taps as required and ensure that the barrels are secured by the two igniting screws.
8) Turn on the gas supply.
9) Remove the oven shelves, fan guard and drip trays.
10) Ensure the pressure switch pipe is clean and free from dirt.
11) Brush off any spillage on the oven burner. Ensure the electrode is clean and that the spark gap is 3 – 4mm.
12) Check the condition of the door seals.
13) Check the door catch and re-grease. Replace oven furniture.
14) Light each hotplate burner in turn and check the full and turn down rate.
15) Replace the pan supports.
16) Check the oven lighting procedure

Fault Finding.

FAULT	POSSIBLE CAUSE	REMEDY
NO SPARK AT ELECTRODE.	Poor or broken connections to the Electrode or damaged insulation	Remake connections or replace Damaged lead
	Spark gap is incorrect	Spark gap should be 3 – 4 mm Adjust as necessary
	The insulation on the electrode is Cracked or broken	Replace the electrode
	Power is not being supplied to the Full sequence Control Unit. Internal Fuse fitted in the Full Sequence Control Unit blown.	Check for any possible fault that May have caused the fuse to blow, e.g. A failed solenoid coil that has gone short circuit. Repair the fault and then replace fuse.
	Air Pressure Switch is not operating Due to insufficient air pressure.	Use manometer to check air Pressure at the pipe outlet. If below 3 mb (when cold) adjust the pipe by slightly bending if towards the fan wheel. Adjust as required. Re-check air pressure.
	Air pipe blocked	Clean out air pipe.
	Full Sequence Control Unit failed	Replace Unit
THE ELECTRODE SPARKS BUT WILL NOT LIGHT.	Pilot Solenoid valve not operating	Check solenoid coil. Replace if Found faulty.
	Air in gas line	Line to be purged by re-starting the Ignition sequence until air is cleared From line.
	Blocked pilot injector	Clean injector
	Spark gap is incorrect	Spark gap should be 3 – 4 mm Adjust as necessary
	Gas Supply off	Turn on supply

Fault Finding.

FAULT	POSSIBLE CAUSE	REMEDY
PILOT LIGHTS MOMENTARILY AND ELECTRODE CONTINUES TO SPARK UNTIL UNIT SHUTS DOWN	Poor or broken earth wire. Polarity Of live and neutral incorrect	Repair poor or broken wire Connection. Ensure that live and Neutral connections are correct
	The pilot flame is too low in height or it is burning in an unstable condition	Check pilot injector size. Clean Injector and pilot assembly if Required. Check gas pressure
FAN NOT ROTATING WITH OVEN SWITCHED ON AND DOOR CLOSED	Failed 5 amp fuse, located at the rear of oven. Check to see if oven Interior lamp is alight.	Check fuse for continuity. If it has failed check all possible reasons For failure. Rectify fault before replacing fuse.
	Door micro-switch, mounted on rear panel, is not operating or broken.	Possible misalignment between Door actuating rod and the micro-Switch actuating arm. Adjust to obtain correct alignment if required or replace switch if broken.
	Failed Air Pressure Switch giving no output feed to Full sequence Control Unit	Check output from Air Pressure Switch. Replace if faulty.
	Failed Capacitor	Check capacitor. Replace if necessary.
	Failed Motor	Check supply to Motor. Of supply to Motor is OK replace Motor.
PILOT LIGHTS SATISFACTORY BUT MAIN BURNER WILL NOT LIGHT UP.	Thermostat not turned on or oven up to temperature.	Turn on thermostat
	Main burner solenoid coil has failed	Replace coil
	Main burner injector has a blockage	Clean and re-fit

Fault Finding.

FAULT	POSSIBLE CAUSE	REMEDY
OVEN FAILING WHILST IN COOKING CYCLE	Pilot burn down. When the oven is cold, the pilot flame should have a length of approx. 25-35mm, or 20-25mm when hot.	Check injector size. If partially blocked clean and re-fit.
	Spark/Flame Detection Electrode may have cracked insulation, allowing moisture to track flame current down to earth	Fit new electrode
	Poor or broken connection on the electrode lead.	Repair connection or replace lead
	Pilot head in contact with main burner, thus affecting flame current	Re-position pilot body to give approx. 6mm clearance
	Air pressure failing as oven gets hot	Check air pressure whilst oven is hot (200°C). If below 1.5 mb, re-position air sensing pipe closer to fan.
	Whilst oven is initially warming from cold, water may condense in the silicone tube causing a temporary blockage in switch. This fault is caused by a leak in the joints at the top or bottom of the pipe. No air should flow in this pipe at all. It is only static pressure that activates the switch	Ensure that the silicone tube is fitting correctly at the top and bottom joints. Do NOT use tie wraps on these joints.

ENSURE THAT THE GAS/ELECTRICITY SUPLY TO THE APPLIANCE HAS BEEN TURNED OFF BEFORE REMOVING OR DISMANTLING ANY CONTROLS.

1) Removal of Oven Thermostat.

Remove all control knobs and control panel, secured by two M5 screws. Withdraw control panel and remove two fixing screws securing thermostat.
From inside the oven – on the right hand side – disengage the thermostat phial and bulb from its holder and ease it through the hole in the oven roof.
From the rear of the appliance, remove the splashback rear panel (which is secured by several screws) followed by the splashback front panel, which is secured by four screws.
The thermostat can now be removed. Replace in reverse order.

ENSURE THAT THE THERMOSTAT PHIAL IS NOT KINKED – HAS NO SHARP BENDS AND IS CORRECTLY LOCATED IN ITS HOLDER.

2) Removing the Oven Burner or Oven Injector.

Remove the shelves and the drip trays from inside the oven. This will expose the burner and its supply tubes.
The oven injector can be removed for cleaning etc, without disturbing the burner.
To clean the injector, brush off with a stiff bristle brush any dirt, blow through the orifice to remove any blockage or restriction – DO NOT POKE WIRE THROUGH THE INJECTOR ORIFICE.
To remove the burner, proceed as above.
Disconnect the burner supply tube by undoing the union and remove the fixing bracket by a single screw. The burner can now be lifted out.

3) Removing the Oven Pilot.

Proceed as described in Section 2
Disconnect the pilot burner supply tube and unscrew the retaining nut holding the igniter/sensor. Remove two screws securing pilot bracket to the base panel. Pilot burner can now be removed.
Pilot can be cleaned using a stiff bristle brush.

4) Removing the Igniter/Sensing Electrode Assembly.

Proceed as described in Section 3
Working from the rear of the appliance, remove the electric's cover, secured by four screws.
Disconnect the igniter/sensor electrode from the two-way terminal block. The electrode can now be removed from inside the oven. Replace in reverse order.

5) Removing the Igniter/Sensing Electrode Assembly.

Proceed as described in Section 3
Working from the rear of the appliance, remove the electric's cover, secured by four screws. Disconnect the igniter/sensor electrode from the two-way terminal block. The electrode can now be removed from inside the oven. Replace in reverse order.

6) To Remove Control Board.

Working from the rear of the appliance, remove the electric's cover, secured by four screws. Remove the screw fastening the control board to the double solenoid valve. Remove the control board from the double solenoid valve. Remove the control board rear cover and disconnect the plug-in connections. Replace in reverse order.

7) To Remove Pressure Switch.

Working from the rear of the appliance, remove the electric's cover, secured by four screws. Remove the pressure switch cover, secured by a single screw.
Disconnect the four wires from the terminal block.
Disconnect the compression union from the sensing pipe and remove the pressure switch.
Replace in reverse order.

8) To Remove Micro-Switch.

Working from the rear of the appliance, remove the electric's cover, secured by four screws. Disconnect the two wires, together with the two fixing screws, taking care not to loose the packing piece.
Replace in reverse order.

9) To Remove the Double Solenoid Coils.

Refer to Section 5, and then remove the fixing screw between the solenoid coils. Pull coils away from the solenoid valve body, taking care not to loose the two compression springs on the valve stems.

Replace in reverse order.

10) To Remove Fan and/or Motor.

From inside the oven cavity, remove the oven shelves and the fan guard, which is secured by four fixing screws.
Remove the single fixing screw securing the fan (this can be done using the fan extractor, located at the rear of the appliance on the back panel, between the flues) then withdraw the fan.
Working from the rear of the appliance, remove the electric's cover, secured by four screws.
Disconnect the three wires from the terminal block plus the earth wire. Unscrew the four fixing screws securing the motor and remove. Replace in reverse order.

11) Serving and Removing a Gas Tap.

Remove the control knobs and the control panel, which is secured by two fixing screws.
The front of the gas tap is now exposed and the procedure for cleaning and re-greasing the tap can be carried out.
Remove the three pan support grids.
Disconnect the compression union from the gas tap to the burner.
Remove the gas tap from the manifold rail by unscrewing the single screw in the clamping bracket below the gas tap and gently prise open the bracket.
To clean and re-grease the gas tap: -
Remove the front cover from the gas tap by unscrewing the two pozi head screws.
Carefully withdraw the cover, taking care not to loose the small spring from inside the tap.
Carefully pull the taper plug from the body of the gas tap.
Clean the plug and the inside of the body using lint free cloth and a suitable solvent.
Wipe both parts clean and dry. Ensure that all holes are clean and free from obstruction.
Lightly re-grease the plug using suitable high temperature grease, such as Rocol, and replace the plug in the gas tap body.
Lightly grease the inside of the gas tap front cover, position the spring and re-assemble the front cover to the body.

DO NOT WORK ON MORE THAN ONE TAP AT A TIME.
ENSURE THAT THE PLUG IS PLACED IN THE CORRECT BODY.

12) To Remove or clean a Hotplate Injector.

Remove the pan support grids.
Remove, by lifting clear, the burner cap, ring and support (skirt).
Remove five screws from each of the stainless steel burner supports – two from each burner and one securing the support to the hob front panel.
The burner support may now be lifted clear, leaving the hotplate burners supported by the pipework
The injectors are exposed and are dismantled by unscrewing.
Clean the injector orifices by blowing through – DO NOT POKE.

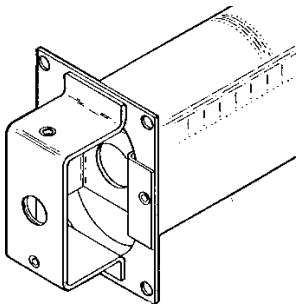
13) To Remove Ignition Switch.

Remove the control knobs and the control panel, which is secured by two fixing screws.

Working at the rear of the control panel, disconnect the wires to the switch - taking careful note of their positions.
Push the switch through the control panel and at the same time squeeze down onto the two tabs above and below the switch. Replace in reverse order.

14) To Convert NG appliances to LP Gas. (Ranges)

Remove the oven furniture.
Switch off and disconnect the supplies.
Remove the oven burner (Section 2) and unscrew the injector.
Fit Aeration Plate (927438-01) to burner using the 1/8" pop rivets.



Fit replacement LP burner injector (924905-04). Unscrew the pilot supply pipe at the pilot assembly and remove the pilot injector (Section 2).

Fit replacement LP pilot injector (922088-10).

Disconnect gas supply pipe to the governor and remove.

Aeration Plate -	927438-01
Burner Injector -	924905-04
Pilot Injector -	922088-10

15) To Convert LP appliances to NG Gas.

Remove the oven furniture.
Switch off and disconnect the supplies.
Remove the oven burner (Section 2) and unscrew the injector.
Remove Aeration Plate (927438-01) by drilling out the 1/8" pop rivets.
Fit Replacement NG burner injector (924905-03).
Unscrew the pilot supply pipe at the pilot assembly and remove the pilot injector (Section 2).
Fit replacement NG pilot injector (922088-09).
Disconnect gas supply pipe and fit replacement governor.
Adjust gas pressure (Installation – page 15).

Burner Injector -	924905-03
Pilot Injector -	922088-09
Governor ½" BSP -	931779-01

16 To convert NG open top burners to LPG. (Ranges).

To convert the top burners remove pan support and burner cap unscrew injector and replace with part No 924905-04 (1.5mm) screw in all by pass screws fully.

17) To convert LPG open top burners to NG.(Rangers)

Remove the pan supports and burner caps remove injector and replace with part No 923905-03 (2,40mm) screw out all by pass screws to give a satisfactory low rate.

SPARE PARTS LIST

Part Number	Description		Quantity
930021-01	Full Sequence Controller	*	1
929358-01	Pressure Switch	*	1
930094-01	Thermostat	*	1
930022-01	Re-Set Switch	*	1
927447-01	Ignition Switch (On-Off)	*	1
926173-01	Neon - Amber	*	1
926173-02	Neon - Green	*	1
081087400	Oven Lamp	*	1
930020-01	Multifunction Gas Control	*	1
930020-02	240v Solenoid Kit	*	1
927557-01	Line Filter	*	1
925283-01	Fuse - (5amp)	*	1
925172-01	Motor	*	1
926013-G1	Fan Assembly	*	1
925174-01	Capacitor	*	1
111496-F1	Micro-Switch	*	1
926303-04	Push Rod Spring	*	1
922088-01	Pilot Body	*	1
922088-09	Pilot Injector - NG (0.75mm)	*	1
922088-10	Pilot Injector - LP (0.26mm)	*	1
926183-02	Electrode Retaining Nut	*	1
926721-G1	Ignition Electrode Assembly	*	1
930023-S2	Sensing Electrode Assembly	*	1
928006-G1	Ign./Sensing Lead c/w Resistor 750mm	*	1
924905-01	Oven Burner	*	1
924905-03	Burner Injector - NG (2.40mm)	*	1
924905-04	Burner Injector - LP (1.50mm)	*	1
931779-01	Gas Governor 3/4 - NG Ranges Only	*	1
931457-S2	Hotplate Gas Tap	*	6
927107-06	Hotplate Gas Tap - Gasket	*	6
927107-07	Hotplate Gas Tap - Bracket	*	6
927107-08	Hotplate Gas Tap - Screw	*	6
933911-01	**Thermocouple (Open Top)**		6
933907-01	**Burner Body c/w NG Injector (Open Top)**		6
933914-01	**Burner Body c/w LP Injector (Open Top)**		6
927123-07	**Olive 10mm Dia (Open Top)**		6
932869-06	**Nut 10mm Dia (Open Top)**		6
933908-01	**Brass Burner Ring (Open Top)**		6
933916-01	**Burner Inj. NG 2.27mm (Open Top)**		6
933915-01	**Burner Inj. LP 1.32mm (Open Top)**		6
933909-01	**Burner Cap Black (Open Top)**		6
933912-01	**8mm Dia burner nut (m13x1) (Open Top)**		6
933913-01	**8mm Dia burner Olive (Open Top)**		6

Spares Parts List (cont.)

Part Number	Description		Quantity
932659-01	Door Magnet	*	1 Per Door
932801-01	Arch Handle	*	4
921913-10	Door Seal - (Horizontal)	*	2
921913-04	Door Seal - (Vertical)	*	2
081193000	Glass/Door Seal	*	4
924402-06	Adjustable Pin		2
932574-01	Lh Top/Rh Bottom Hinge		2
932574-02	Rh Top/Lh Bottom Hinge	*	1
930875-05	Thermostat Control Knob	*	6
930875-01	Hotplate Control Knob		
932599-02	Pan Support - Enamel	*	3
924435-01	Shelf	*	4
926015-01	Lh Rack Support	*	1
926015-01	Rh Rack Support	*	1
932853-01	Leg 65mm Dia	*	4
932811-01	Castor Swivel Braked	*	2
932811-02	Castor Swivel Unbraked	*	2
922088-G1	Pilot Assy NG	*	Spares Kit
922088-G2	Pilot Assy LP	*	Spares Kit
933931-S1	Conversion Kit LP to NG - Open Top Range	*	Spares Kit
933931-S2	Conversion Kit NG to LP - Open Top Range	*	Spares Kit

Spare parts are available from:-

The Service Department,
Ashbourne House
The Guildway
Old Portsmouth Road
Guildford
Surrey
GU3 1LR
Tel: +44 (0) 1483 464903
Fax: +44 (0) 845 301 1463

WARRANTY COVER

The Company offer twelve months warranty with each new piece of equipment subject to our normal conditions of sale and will undertake responsibility for warranty subject to the additional following conditions.

Notice of the defect/damage is given within 48 hours of breakdown or in the case of damage four days from the date of despatch and the manufacturer given adequate opportunity to examine the goods in order that appropriate action can be taken.

The Company will not be obliged to repair or replace any goods if after examination the defect/damage is found to be through accident, misuse, neglect, incorrect installation or maintenance by other than approved engineers, or any other cause beyond the reasonable control of the manufacturer.

EXCLUSIONS TO WARRANTY

Normal routine maintenance is not covered and the warranty specifically excludes any problems, which are related to scale caused by hard water and the cleaning of pilot jets. Also excluded from the warranty are the following consumable items.

Tap washers and springs, gaskets, oven lamps and indicating lights, door seals and any other perishable parts.

This warranty in no way prejudices your rights under common law and is offered as an addition to your statutory rights.